

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Mark D. Matson; Bruce E. Edwards
Assignee: Broadcom Corporation
Title: MAC Controlled Sleep Mode/Wake-up Mode with Staged Wake-up for Power Management Devices
Serial No.: 10/810,094 Filed: March 26, 2004
Examiner: Andrew Wendell Group Art Unit: 2618
Docket No.: BP 3197 Customer No.: 34399

Austin, Texas
February 29, 2008

FILED ELECTRONICALLY

SUPPLEMENTAL APPEAL BRIEF SUBMISSION UNDER MPEP § 1205.03 TO PROVIDE SUMMARY OF CLAIMED SUBJECT MATTER

Dear Sir:

In response to the Notification of Non-Compliant Appeal Brief dated January 29, 2008, Applicant files this Supplemental Appeal Brief Submission pursuant to MPEP § 1205.03 for purposes of providing a summary of the claimed subject matter as required by 37 C.F.R. § 41.37(c)(1)(v). *See*, MPEP § 1205.03 (“When the Office holds the brief to be defective solely due to appellant’s failure to provide a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v), an entire new brief need not, and should not, be filed. Rather, a paper providing a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v) will suffice.”). No fee is believed to be due for this filing; however, the Board is authorized to deduct any amounts required for resubmission of this appeal brief and to credit any amounts overpaid to Deposit Account No. 502264.

According to the Notification, the originally submitted Appeal Brief does not meet the requirements for providing a summary of the claimed subject matter as required by 37 CFR § 41.37(c)(1)(v), in that the “claimed invention is not mapped to independent claims 1, 11 and 19, which shall refer to the specification by page and line number and to the drawings, if any.” In response, Applicants respectfully submit that the original Appeal Brief fully meets the requirements of 37 C.F.R. § 41.37(c)(1)(v). In particular, Applicants’ original Appeal Brief provided a color-coded graphical comparison of independent claims 1, 11, and 19 to

corresponding Figures from the Application. See, Appendix C to the Appeal Brief, where the correspondence of claim 1 was graphically correlated to the example description of Figures 3 and 4; the correspondence of claim 11 was graphically correlated to the example description of Figure 4; and the correspondence of claim 19 was graphically correlated to the example description of Figure 5. In addition, Applicants provided a concise explanation of the subject matter of each independent claim by referring to pages 3-15 (paragraphs 8-42) of the application. If the reason for non-compliance is that “page and line number” are not cited, Applicants have updated the “Summary of Claimed Subject Matter” section to recite page and line number from the original application. In addition and solely for purposes of expediting consideration of the appeal, Applicants have included a supplemental explanation of the independent claim subject matter to map these claims to the drawings and specification by page and line number.

V. SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)

The subject matter defined in independent claim 1 may be understood with reference to the example embodiment depicted in Figures 2-4 which depict the claimed data processor for use in a wireless communication device. To comply with 37 CFR § 41.37(c)(1)(v), a color-coded comparison of independent claim 1 (including reference characters) and the relevant portions of the figures are set forth below.

As shown in Figures 2 and 3, a data processor for use in a wireless communication device includes **a processing unit (e.g., processing module 51 and/or a wireless interface device having a MAC module implemented with communication processor 100)**. See, e.g., Application, Figures 2-3, page 6, lines 21-29, and page 9, line 23 to page 10, line 24. The depicted data processor also includes **an instruction pipeline circuit 140**, along with one

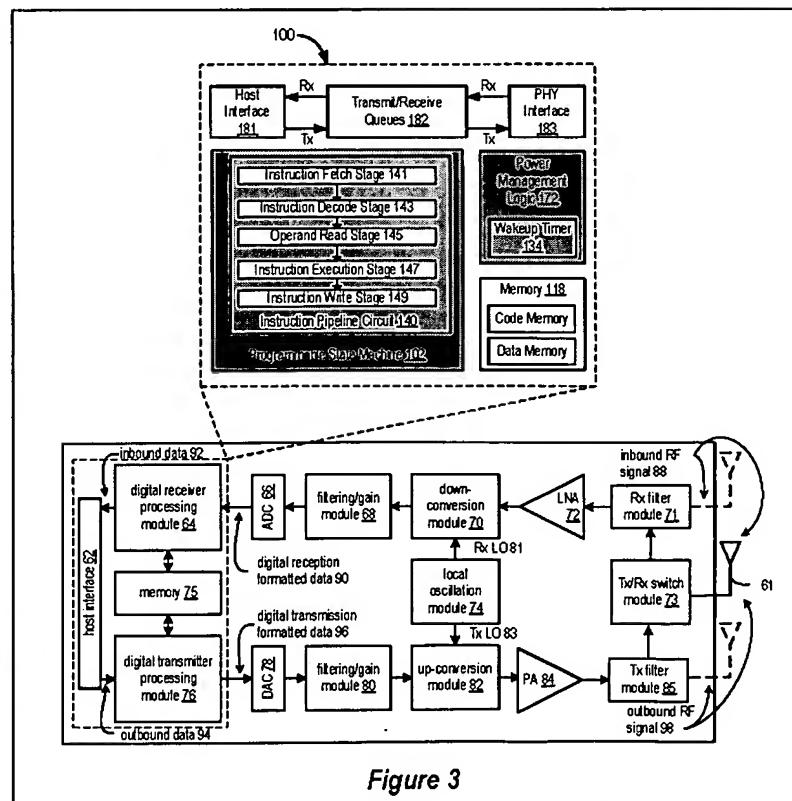


Figure 3

or more processing modules (e.g., modules in the transmit/receive queues and supporting hardware 182, digital receiver processing module 64, digital transmitter processing module 76, or any of the interface modules 66, 68, 70, 72, 71, 73, 76, 78, 80, 82, 84, or 85). See, e.g., Application, Figure 3, page 7, line 14 to page 11, line 16. Finally, the data processor also includes a wake-up timer 134 for generating a time-out interval and power control logic 172. See, e.g., Application, Figure 3, page 10, line 10 to page 11, line 16.

In operation and as depicted with reference to Figure 4, the power control logic 172 detects a sleep instruction 405 and places the processing unit 102, instruction pipeline circuit 140 and at least one processing module (e.g., 64, 76, etc.) in a low-power state 406, where the power control logic 172 is operative in response to a wake-up signal 407 to reactivate the instruction pipeline circuit 140, and consequently at least one processing module only to the extent required by the wake-up signal. See, e.g., Application, Figure 4, page 11, lines 17-30.

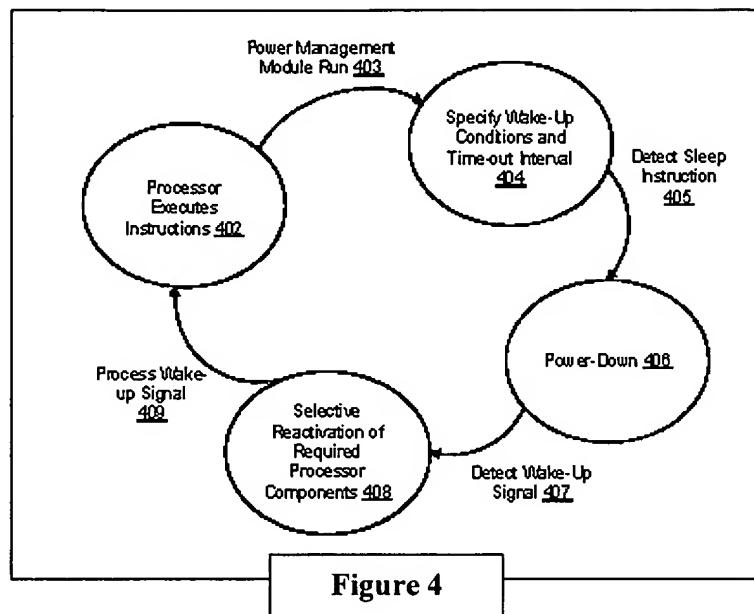


Figure 4

In further compliance with 37 CFR § 41.37(c)(1)(v), a color-coded comparison of selected Figures from the application and each of the pending independent claims is attached at Appendix “C” to provide a concise explanation of the subject matter defined in each independent claim. The subject matter of the independent claims is set forth in the specification at page 3, line 29 to page 15, line 22, though additional contextual description is provided in the application. For example, the subject matter of claim 1 maps to Figures 3 and 4 and to the specification at page 3, line 29 to page 4, line 20, and page 7, line 14 to page 12, line 6; the subject matter of claim 11 maps to Figures 4 and to the specification at page 3, line 29 to page 4, line 20, and page 11, line 17 to page 12, line 6; and the subject matter of claim 19 maps to Figure 5 and to the specification at page 3, line 4 to page 7, line 19, and page 12, line 7 to page 14, line 20. While Applicants have identified passages from the specification to explain the independent

claim subject matter, it will be appreciated that the referenced description includes contextual information to provide an overall context for an example embodiment, and therefore should not be used to improperly read limitations from the specification into the claims.

CONCLUSION

In view of the above supplemental description providing a summary of the claimed subject matter, Applicant requests that the Notification of Non-Compliant Appeal Brief be withdrawn and that the pending rejections of the claims should not be sustained.

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Respectfully submitted,

/Michael Rocco Cannatti/

Michael Rocco Cannatti
Attorney for Applicants
Reg. No. 34,791

APPENDIX C

1. A data processor for use in a wireless communication device, comprising:
 - a processing unit;
 - an instruction pipeline circuit;
 - at least one processing module;
 - a timer for generating a time-out interval; and

power control logic for detecting a sleep instruction and placing the processing unit, instruction pipeline circuit and at least one processing module in a low-power state, where the power control logic is operative in response to a wake-up signal to reactivate the instruction pipeline circuit, and consequently at least one processing module only to the extent required by the wake-up signal.

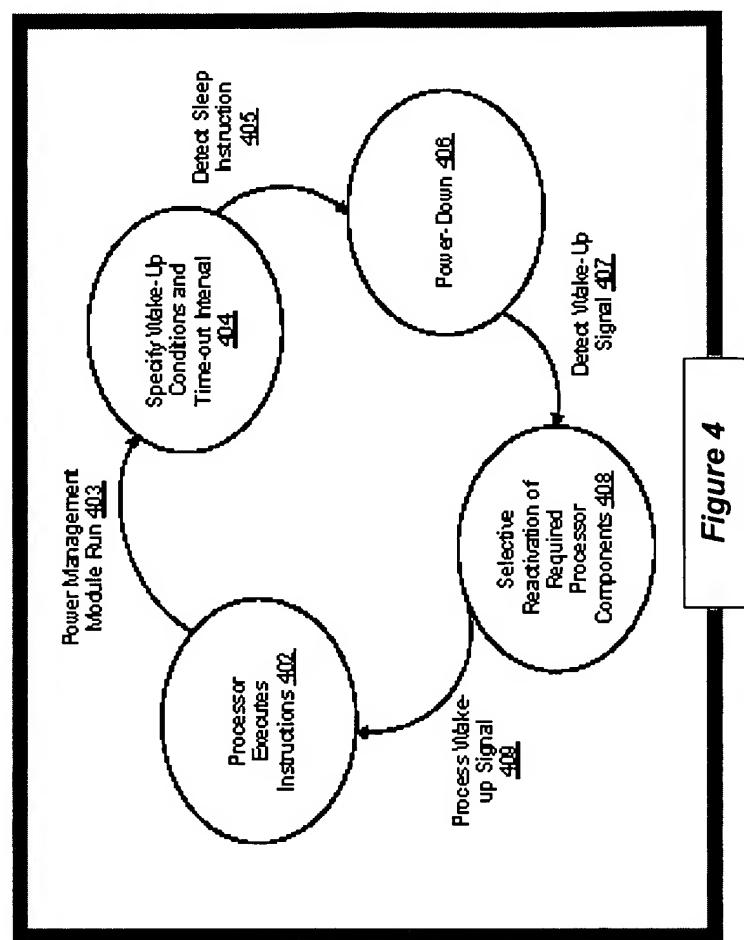


Figure 4

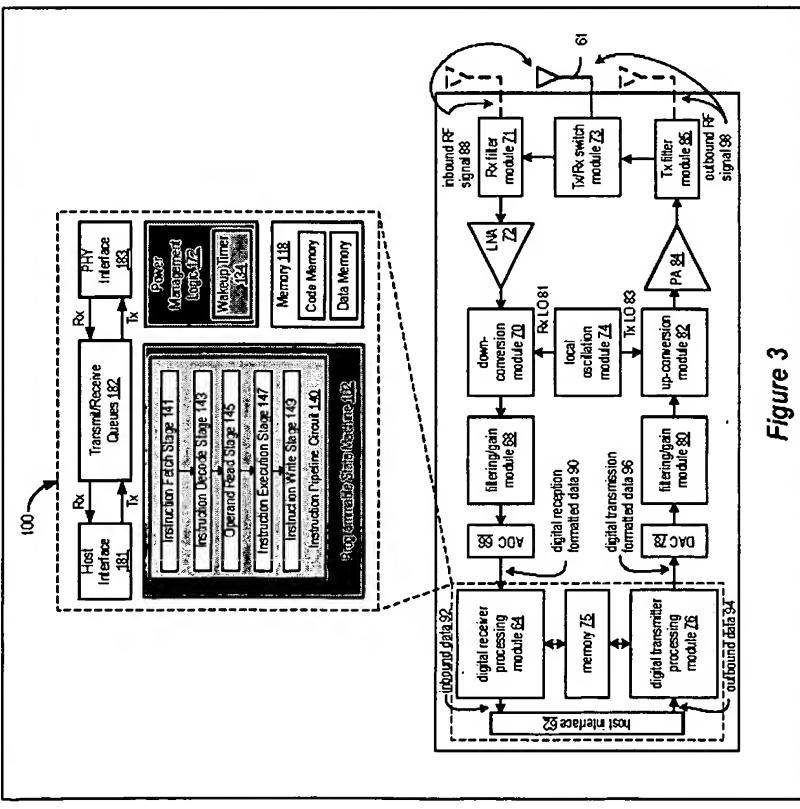


Figure 3

11. An article of manufacture having at least one recordable medium having stored thereon executable instructions and data which, when executed by at least one processing device, cause the at least one processing device to:

detect a sleep instruction for the processing device;

Specify one or more wake-up conditions and a time-out interval;

power down an instruction pipeline and one or more processor modules;

reactivate the instruction pipeline upon detection of a wake-up signal corresponding to either a wake-up condition or the time-out interval, and

process one or more instructions in the instruction pipeline to reactivate any of the one or more processor modules required to respond to a detected wake-up condition.

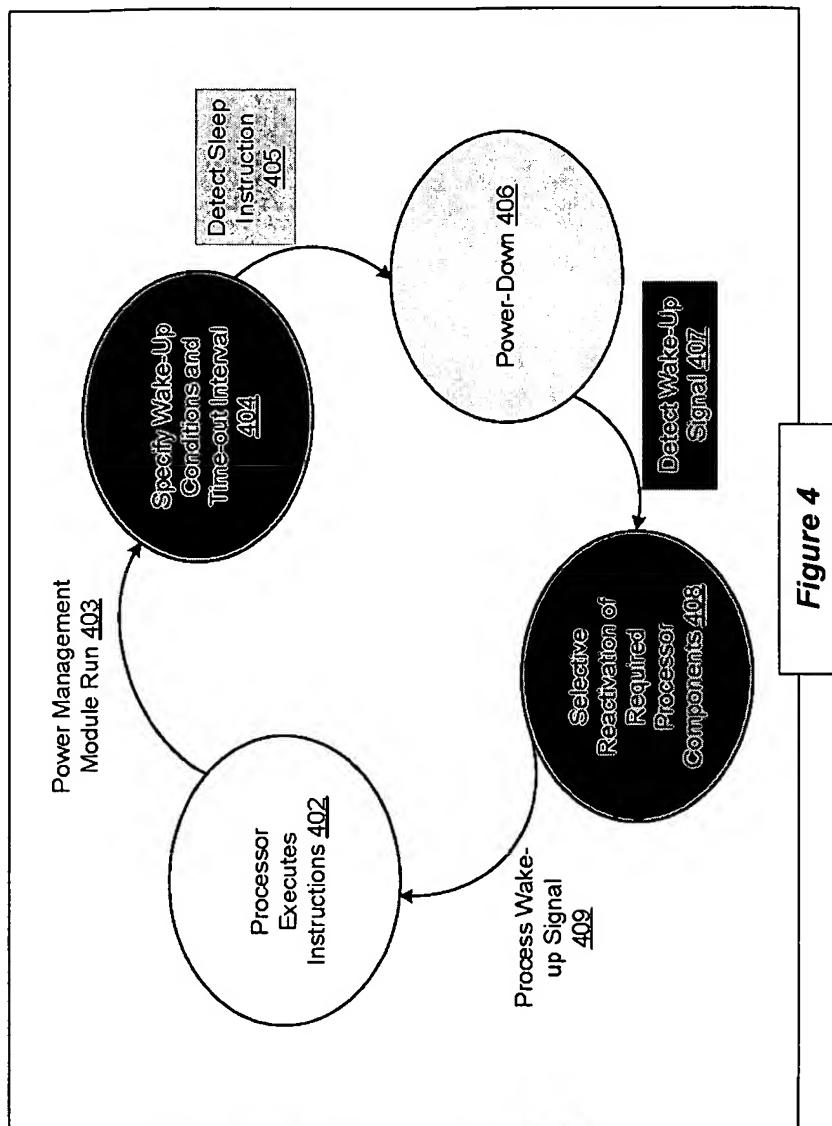


Figure 4

19. A method for managing power in a communications processor by selectively removing one or more processor modules from a standby mode, comprising:
- storing one or more wake-up conditions and a time-out interval in a register;
- receiving a processor sleep instruction;
- executing any pending instructions received by the processor before the sleep instruction;
- powering down the one or more processor modules;
- receiving the a processor or wake-up signal corresponding to one of said wake-up conditions of said time-out interval;
- waking up only the processor modules required to respond to the detected processor wake-up signal.

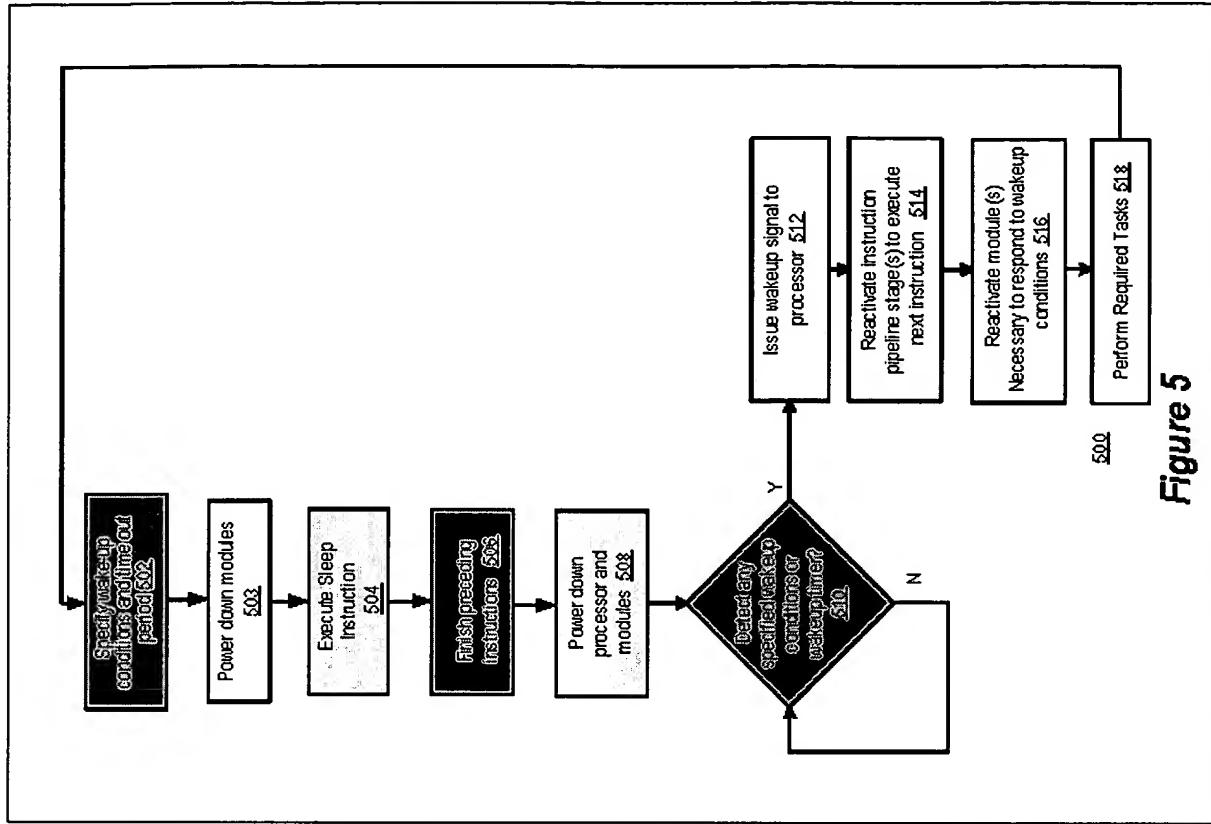


Figure 5